

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A system for phase aligning a first timing signal with a second timing signal, the system comprising:

a selection unit coupled to a plurality of timing sources, wherein one ~~time~~ timing source is being used as a reference to produce the first timing signal and at least one timing source is an internal timing source;

a detection ~~means~~ unit coupled to the selection unit for detecting a failure in the reference timing source of the first timing signal and causing the selection unit to switch to another timing source to continue generating the first timing signal; and

a unit coupled to the selection unit for comparing the phase of the first timing signal after switching to the other timing source to the phase of the second timing signal, wherein the unit introduces gradual phase alterations to the second timing signal until the first and second timing signals are in-phase.

2. (Currently Amended) The system of claim 1, wherein the detection ~~means~~ unit comprises:

an alarm activity unit coupled to the timing sources for detecting a failure in any one of the timing sources; and

a control unit coupled to the alarm unit and the selection unit for determining and instructing the selection unit to switch to another timing source.

3. (Original) The system of claim 1, further comprising an internal timing unit coupled to the selection unit for providing the internal timing source.

4. (Original) The system of claim 1, wherein the unit comprises:

a phase detection unit coupled to the selection unit for comparing the phase of the first timing signal to the phase of the second timing signal;

a phase adjuster unit coupled to the phase detection unit for providing a feedback timing signal that indicates a gradual phase shift of the second timing signal to the phase detection unit and continues the gradual phase shift as long as the first timing signal and the second timing signal are detected as being But of phase by the phase detection unit;

a low pass filter coupled to the phase detection unit for filtering the output timing signal from the phase detector unit; and

an oscillator coupled to the low pass filter and the phase adjuster unit for providing the feedback timing signal.

5. (Currently Amended) A method for phase aligning a first timing signal with a second timing signal, the system comprising:

switching to a timing source to provide the first time timing signal when a failure is detected in an existing timing source;

comparing the phase of the first timing signal to the second timing signal to determine the relative phase of the first timing signal to the second timing signal; and

gradually phase shifting the second timing signal until the first timing signal and the second timing signal are in-phase by introducing incremental phase changes to the second timing signal over a plurality of cycles.

6. (New) The system of claim 3, further comprising a flip-flop disposed between the selection unit and the internal timing unit to provide a signal from the selection unit to the internal timing unit.

7. (New) The system of claim 3, further comprising a flip-flop disposed between the detection unit and the internal timing unit to provide a signal from the detection unit to the internal timing unit.

8. (New) The system of claim 1, wherein the first timing signal has a frequency of 8 kHz.

9. (New) The system of claim 1, further comprising a generator unit coupled to the unit to receive the first timing signal and generate at least one output signal.

10. (New) The system of claim 9, further comprising a flip-flop disposed between the selection unit and the generator unit to provide a signal from the selection unit to the generator unit.

11. (New) The method of claim 5, wherein gradually phase shifting the second timing signal comprises gradually phase shifting the second timing signal in response to a feedback timing signal provided by a phase adjuster unit disposed between an oscillator and a phase detection unit.